

CLAIMS

What is claimed is:

1. A method for decoding an encoded video file, comprising:

receiving the encoded video file,

wherein the encoded video file includes a plurality of encoded video data tables

and a plurality of reference pixel value sets;

decoding the plurality of encoded video data tables using the plurality of reference pixel

value sets; and

returning decoded video data.

2. The method of claim 1, wherein decoding the plurality of encoded video data tables comprises:

analyzing each encoded video data table of the plurality of encoded video data tables

sequentially, wherein each encoded video data table represents an encoded video frame;

decomposing each encoded video data table into a plurality of rows, wherein each row includes a dominant color value, a scaled color value, and a scaled value set; and for each row,

determining a reference pixel parameter set of the plurality of reference pixel parameter sets by looking-up the dominant color value within the plurality of reference pixel value sets;

multiplying the scaled value set by the reference pixel parameter set to provide an expanded value set;

multiplying the scaled color value by the reference pixel parameter set to provide a pixel color parameter set; and

storing the expanded value set and the pixel color parameter set into a decoded row in a decoded video data table.

3. The method of claim 1, wherein each encoded video data table of the plurality of encoded video data tables includes a plurality of rows, wherein each row of the

plurality of rows includes a dominant color value of a plurality of dominant color values, a scaled color value of a plurality of color values, and a scaled value set of a plurality of scaled value sets.

4. The method of claim 3, wherein each reference pixel value set of the plurality of reference pixel value sets includes a plurality of pixel color parameters cross referenced with one dominant color value of the plurality of dominant color values.
5. The method of claim 2, wherein the plurality of dominant color values comprises a red value, a blue value, and a green value.
6. The method of claim 1, wherein the plurality of reference pixel value sets includes a red reference pixel value set, a blue reference pixel value set, a green reference pixel value set, and a black reference pixel value set.
7. The method of claim 6, wherein each reference pixel value set of the plurality of reference pixel value sets includes a reference color value set, a reference chrominance value, and a reference luminance value.
8. The method of claim 2, wherein decoding the plurality of encoded video data tables further comprises constructing the decoded video data from a plurality of the decoded video data table.
9. The method of claim 1, wherein decoding the encoded video file includes reading header information including parameters describing the decoded video file.
10. The method of claim 2, wherein the expanded value set includes an expanded chrominance value, and expanded luminance value.

11. The method of claim 2, wherein the pixel color parameter set include one or more of RGB values, CMYK values, component video values, and composite video values.

12. The method of claim 2, wherein the encoded video file is received from a network file server.

13. The method of claim 2, wherein the decoded video file is formatted as one or more broadcast protocol, wherein the broadcast protocols include NTSC, PAL, SECAM, RGB, CMYK, and HDTV.

14. A method for decoding an encoded pixel, comprising:

receiving the encoded pixel,

wherein the encoded pixel includes a reference pixel value set;

decoding the encoded pixel using the reference pixel value set; and

returning decoded pixel data.

15. The method of claim 14, wherein decoding the encoded pixel comprises:

decomposing the encoded pixel into a dominant color value, a scaled color value, and a scaled value set; and

multiplying the scaled value set by the reference pixel parameter set to provide an expanded value set; and

multiplying the scaled color value by the reference pixel parameter set to provide a pixel color parameter set.

16. The method of claim 14, wherein the reference pixel value set includes pixel color parameters cross referenced with the dominant color value.

17. The method of claim 16, wherein the dominant color values is one of a red value, a blue value, or a green value.

18. The method of claim 14, wherein the reference pixel value set is one of a red reference pixel value set, a blue reference pixel value set, a green reference pixel value set, or a black reference pixel value set.
19. The method of claim 18, wherein the reference pixel value set includes a reference color value set, a reference chrominance value, and a reference luminance value.
20. The method of claim 15, wherein decoding the encoded pixel includes reading header information including parameters describing the decoded pixel.
21. The method of claim 15, wherein the expanded value set includes an expanded chrominance value, and expanded luminance value.
22. The method of claim 15, wherein the pixel color parameter set includes one or more of RGB values, CMYK values, component video values, and composite video values.
23. The method of claim 15, wherein the encoded pixel is received from a network file server.